CURRICULUM VITAE

Name: ***Dr. Amitava Choudhuri, M.Sc., Ph.D.***

Address for Correspondence:

Present Address

Dr. Amitava Choudhuri,
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Permanent Address

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Short personal introduction:

After finishing the secondary education in 1995 from our village school (Ayas High School, Ayas, Birbhum, West Bengal), I admitted for higher secondary education at J. L. Vidya Bhavana in nearby city, Rampurhat. Finishing Higher Secondary education in 1997 from there, I completed three years B.Sc, degree course in Physics in 2000 from Rampurhat College under The University of Burdwan and received M.Sc, (Physics) degree (2000-2002) from Visva-Bharati, Santiniketan, West Bengal, India. Then I started my doctoral research work at Visva-Bharati in 2005 under the supervision of Prof. B. Talukdar, Department of Physics, Visva-Bharati, Santiniketan and completed in the year 2010. In the mean time (Dec. 2002-April 2004) I worked as Project Associate on a research title 'Using HI Observation to probe Cosmology' in IIT Kharagpur. There I also studied few basic advanced courses on Astorphysics, Cosmology, General Theory of Relativity etc. After submitting my thesis I joined as Assistant Professor and taught the basic Engineering Physics courses in an Engineering College named Bengal Institute and Technology and Management, Daronda, Santiniketan, West Bengal during the period from 16th July, 2010 – 19th April, 2011. I worked as a Post Doctoral Research Associate (PDRA) under Prof. K. Porsezian, Professor of Physics, in Pondicherry University, on nonlinear optics from April 2011 to July 2012. I started working as Guest Faculty in the Department of Astrophysics, Pondicherry University. I taught few courses on Astrophysics (Radiative transfer process, Stellar Physics, General Relativity & Cosmology) , and Physics (Classical Mechanics, Nuclear & Particle Physics, Electrodynamics, Mathematical Method) during the period August 2012 – November 2014 in Pondicherry University.

Present Position:

Assistant Professor (Stage-II) (4th December 2018 onwards), Department of Physics (Center for Advanced studies), The University of Burdwan, West Bengal, India

Assistant Professor (Stage-I) (4th December 2014-3rd December 2018), Department of Physics (Center for Advanced studies), The University of Burdwan, West Bengal, India

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Teaching assignments at The University of Burdwan:

M.Sc. Physics: 1. General Theory of Relativity and Astrophysics (at present)
2. Cosmology (at present)
3. Nonlinear dynamics
4. Classical Electrodynamics

Ph.D. course work: Astrophysics and Cosmology (at present)

Research Area of Interest:

1. GTR, Cosmology and Astrophysics

2. Nonlinear Optics

3. Dynamical System Theory

4. Nonlinear Integrable systems

5. Symmetry analysis

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1. **Astrophysics & Cosmology:** Astronomy is one of the oldest fields of scientific enquiry. It is an observational science that studies celestial objects (planets, stars, neutron stars, black holes, pulsars, galaxies, dark matter, dark energy etc.) which collectively make up the Universe and phenomena that may hold the key to understand their nature, as well as the origin and evolution of the Universe. **Astrophysics** is the branch of astronomy that deals with the physics of the universe, including the physical properties of celestial objects, as well as their interactions and behavior. **Cosmology** is the branch of physics and astrophysics that deals with the study of the physical origins and evolution of the Universe. It also includes the study of the nature of the Universe on its very largest scales.
2. ***Nonlinear Optics:*** **Nonlinear optics** (NLO) is the branch of optics that describes the behavior of light in nonlinear media, that is, media in which the dielectric polarization responds nonlinearly to the electric field of the light. This nonlinearity is typically only observed at very high light intensities.

3. ***Nonlinear Dynamics:*** **Nonlinear dynamics** is the study of systems that are described by second-order differential equations. The second-order ordinary differential equation can be represented by two equivalent first-order differential equations (autonomous). Writing in first-order equations we can find the equilibrium points and study the linear stability check through the critical point analysis using dynamical system theory. For the case of complicated higher-order nonlinear systems, first we have to reduce the higher-order nonlinear partial differential into a second-order ordinary differential equation through some transformation and have to apply the dynamical system theory.
4. ***Nonlinear Integrable Systems:*** Nonlinear integrable systems play important role in diverse areas of physics, ranging from water wave theory, nonlinear optics to Bose-Einstein condensation. Nonlinear integrable equations can often be solved either by the use of an inverse spectral method or by taking recourse to a simple change of variables. Integrable nonlinear evolution equations admit zero curvature or Lax pair representation. These equations are characterized by an infinite number of conserved densities which are in involution. Moreover, each number of the hierarchy has a bi-Hamiltonian structure.
5. ***Symmetry Analysis:*** We also work with a formulation of Noether- and Lie symmetry analysis which uses the properties of infinitesimal point transformations in the space-time variables to establish the association between symmetries and conservation laws of a dynamical system.

Ph·D Thesis Title :

Lagrangian approach to nonlinear evolution equations

Ph.D. work in short:

The active area of research investigation during the past sixty years has been the study of solitons and related nonlinear real world phenomena that cannot be explained with the linear evolution equations. A Lagrangian based approach is derived to study the properties of some physically interesting integrable nonlinear evolution equations. The properties studied include their Lax representations, bi-Hamiltonian structures, variational symmetries for the justification of their integrability. The method is also used to seek a supersymmetric extension of the equations.

Ph.D. research work detailed :

The equations in the modified KdV hierarchy are considered and Miura transformation is used to construct the expressions for their Lax pair representations. A Lagrangian based approach is derived to study the bi-Hamiltonian structure. It is shown that the complex modified KdV (cmKdV) equation follows from the action principle to have a Lagrangian representation. This representation not only provides a basis to write the cmKdV equation in the canonical form endowed with an appropriate Poisson structure but also help us to construct a semianalytical solution of it. The solution obtained by us may serve as a useful guide for purely numerical routines which are currently being used to solve the cmKdV eqution. A general form of the fifth-order nonlinear evolution equation is considered. Helmholtz solution of the inverse variational problem is used to derive conditions under which this equation admits an analytic representation. A Lennard-type recursion operator is then employed to construct a hierarchy of Lagrangian equations. It is explicitly demonstrated that the constructed system of equations has a Lax representation and two compatible Hamiltonian structures. The homogeneous balance method is used to derive analytic soliton solutions of the third- and fifth-order equations.

***Articles published*:**

1. ***On a Generalized Fifth-Order Integrable Evolution Equation and its Hierarchy Amitava Choudhuri, B. Talukdar and S. B. Datta, Z. Naturforsch, 61a, 7-15 (2006)***
2. ***Modified KdV hierarchy : Lax pair representation and bi-Hamiltonian structure, Amitava Choudhuri, B. Talukdar and U. Das, Z. Naturforsch, 64a, 171-179 (2008)***

A Lagrangian based approach is derived to study the compatible Hamiltonian structure of the dispersionless KdV and supersymmetric KdV hierarchies. It is claimed that our treatment of the problem serves as a very useful supplement of the so-called r-matrix method. A specific method is suggested to construct results for conserved densities and Hamiltonian operators. The Lagrangian formulation, via Noether's theorem, provides a method to make the relation between symmetries and conserved quantities more precise. This fact is exploited to study the variational symmetries of the dispersionless KdV equation.

Article published:

1. ***Lagrangian approach to dispersionless KdV hierarchy Amitava Choudhuri, B. Talukdar and U. Das SIGMA 3, 096 (2007)***

Supersymmetrization of a nonlinear evolution equation in which the bosonic equation is independent of the fermionic variable and the system is linear in fermionic field goes by the name B-supersymmetrization. B-supersymmetric extension of a number of quasilinear and fully nonlinear evolution equations is provided. It is demonstrated that the supersymmetric system follows from the usual action principle. Further, it is observed that B-supersymmetrization can also be realized using a generalized Noetherian symmetry such that the resulting set of Lagrangian symmetries coincides with symmetries of the field equations. Following this viewpoint conservation laws for the supersymmetric pair of equations are derived. Moreover, the bosonic and fermionic fields are found to be complementary.

Article published:

1. ***On the supersymmetric nonlinear evolution equations Amitava Choudhuri, B. Talukdar and S. Ghosh nonlinear Dynamics, 58, 245-258 (2009)***

Post Ph·D· Research:

Nonlinear Optics: Higher-order nonlinear Schrodinger equations, Optical solitons, Modulational instability study, Sub-10 fs pulse propagation in non-Kerr media, Dispersion and Nonlinear management in inhomogeneous media.

Supervision of Research Scholars

Names of the Research Scholars	Status	Research Area	Progress
Mr. Mithun Bairagi	Part Time (Registered)	Inflationary Cosmology	Completed Degree Awarded
Mr. Aritra Ganguly	Part Time (Registered)	Cosmology: Density perturbation Theory	Completed
Mr. Tanmoy Nandi	Part Time (Registered)	Bulk Viscous Cosmology	Ongoing
Mr. Subhra Mondal	Full Time	Cosmology: Density perturbation theory	Ongoing
Mr. Chitrak Sarkar	Full Time	Stringy Inflationary Cosmology	Ongoing (Co-Supervisor)

Research Projects:

Sl. No.	Title	Funding Agency	Duration
1	**A symmetry-based analysis of certain cosmological problems**	University Grant Commission, India,	2017-2019 + One year extension (Completed)

Full List of Publications

A. Papers published

Sl. No.	Article Title	Authors Name	Journals reference	Research Area
35	**Spatiotemporal modulated solitons in a quasi-one-dimensional spin-1 Bose–Einstein condensates**	Fei-Yan Liu, Su-Yong Xu, Houria Triki, **Amitava Choudhuri**, Qin Zhou	Chaos, Solitons & Fractals **183**, 114947 (2024)	Bose-Einstein condensate
34	**Symmetry-based study and dynamics of casual bulk viscous matter-dominated universe**	Tanmay Nandi and Amitava Choudhuri	The European Physical Journal C **84** (336), 1-20 (2024)	Bulk Viscous Cosmology
33	Temporal evolution of cosmological density perturbations of the Bose–Einstein condensate dark matter	Subhra Mondal and **Amitava Choudhuri**	The European Physical Journal C **84** (193) 1-18 (2024)	Density perturbation, Cosmology
32	Studies of Density Contrast of Cold Dark Matter in Cosmological Radiation and Dark Energy Background: A Symmetry-Based Approach	Aritra Ganguly and **Amitava Choudhuri**	Gravitation and Cosmology **29** (4), 419- 431 (2023)	Density perturbation, Cosmology
31	Study on cosmic evolution and dynamics of a flat FLRW matter-dominated universe with a specified form of dynamical Cosmological Constant term	Tanmy Nandi, **Amitava Choudhuri**	International Journal of Innovative Research in Physics **4** (1), 29-46 (2022)	Cosmology
30	Cosmological Density Perturbation of Cold Dark Matter in Newtonian Gravity Scenario after Recombination: a Symmetry-Based Approach	Aritra Ganguly, **Amitava Choudhuri**	Gravitation and Cosmology, **28** (2), 153-165 (2022)	Density Perturbation, Cosmology
29	The Minimally Coupled and Canonical Scalar Field Inflationary Cosmology with Negative Quadratic and Modified Higgs-like Potentials: A Symmetry Based Approach	**Amitava Choudhuri,** Mithun Bairagi	International Journal of Theoretical Physics **61** (6), 1-25 (2022)	Inflationary Cosmology
28	Study on early inflationary phase using a new form of non-canonical scalar field model	Mithun Bairagi, **Amitava Choudhuri**	General Relativity and Gravitation **53** (3), 1-30 (2021)	*Inflationary Cosmology*
27	Early Inflationary Phase with Canonical and Noncanonical Scalar Fields: A Symmetry-Based Approach	Mithun Bairagi, **Amitava Choudhuri**	Gravitation and Cosmology **26** (4), 326-350 (2020)	*Inflationary Cosmology*

26	Cosmological Density Perturbations from Matter Domination to Recombination in Newtonian and MONDian Gravity Scenarios	Aritra Ganguly, **Amitava Choudhuri**	Gravitation and Cosmology **26** (3), 228-240 (2020)	*Cosmology*
25	Nonautonomous matter wave bright solitons in a quasi-1D Bose-Einstein condensate system with contact repulsion and dipole-dipole attraction	H Triki, **Amitava Choudhuri**, Q Zhou, A Biswas, A.S Alshomrani	Applied Mathematics and Computation **371**, 124951 (2020)	*Nonlinear Optics*
24	Cosmological Density Perturbations in Newtonian- and MONDian Gravity Scenario: A Symmetry-Based Approach	**Amitava Choudhuri**, Aritra Ganguly	Foundations of Physics 49 (1), 63-82 (2019)	*Cosmology*
23	Power-law inflation with minimal and nonminimal coupling	Mithun Bairagi, **Amitava Choudhuri**	The European Physical Journal Plus 133 (12), 545 (2018)	*Inflationary Cosmology*
22	Dark solitons in an extended nonlinear Schrödinger equation with higher-order odd and even terms	H Triki, **Amitava Choudhuri**, K Porsezian, PT Dinda	Optik 164, 661-670 (2018)	*Nonlinear Optics*
21	W-shaped, bright and kink solitons in the quadratic-cubic nonlinear Schrödinger equation with time and space modulated nonlinearities and potentials	H Triki, K Porsezian, **Amitava Choudhuri**, PT Dinda	Journal of Modern Optics 64 (14), 1368-1376 (2017)	*Nonlinear Optics*
20	Solitons in the nonlinear Schrödinger equation with two power-law nonlinear terms modulated in time and space	H Triki, K Porsezian, **Amitava Choudhuri**	Physical Review E 95 (6), 062208 (2017)	*Nonlinear Optics*
19	Self-similar localized pulses for the nonlinear Schrödinger equation with distributed cubic-quintic nonlinearity	**Amitava Choudhuri**, H Triki, K Porsezian	Physical Review A 94 (6), 063814 (2016)	*Nonlinear Optics*
18	Chirped solitary pulses for a nonic nonlinear Schrödinger equation on a continuous-wave background	H Triki, K Porsezian, **Amitava Choudhuri**, PT Dinda	Physical Review A **93** (6), 063810 (2016)	*Nonlinear Optics*
17	Study of implosion in an attractive Bose-Einstein condensate	S Subramaniyan, **AmitavaChoudhuri**, K Porsezian, B Dey	The European Physical Journal D **70** (5), 1-7 (2016)	*BEC*
16	Spatially flat Universe filled with barotropic causal bulk viscous fluid: A symmetry-based approach	**Amitava Choudhuri**	Phys. Scr. **90**, 055004 (2015)	*Cosmology*
15	Erratum: Impact of dispersion and non-Kerr nonlinearity on the modulational instability of the higher-order nonlinear Schrödinger equation [Phys. Rev. A 85 , 033820 (2012)]	**Amitava Choudhuri** and K Porsezian	Phys. Rev. A **91**, 059905 (2015)	*Nonlinear Optics*
14	Higher-order nonlinear Schrödinger equation with derivative non-Kerr nonlinear terms: A model for sub-10-fs-pulse propagation **http://pra.aps.org/abstract/PRA/v88/i3/e033808**	**Amitava Choudhuri** and K Porsezian	Phys. Rev. A 88, 033808 (2013**)**	*Nonlinear Optics and Nonlinear Dynamics*
13	Impact of dispersion and non-Kerr nonlinearity on the Modulational Instability of Higher-Order Nonlinear Schrodinger equation, http://pra.aps.org/abstract/PRA/v85/i3/e033820	**Amitava Choudhuri** and K Porsezian	Phys. Rev. A **85**, 033820 (2012)	*Nonlinear Optics*
12	Dark-in-the-Bright solitary wave solution of Higher-Order Nonlinear Schrodinger equation with non-Kerr terms,	**Amitava Choudhuri** and K Porsezian	Opt. Commun. **285 ,** 364 (2012)	*Nonlinear Optics*

	http://www.sciencedirect.com/science/article/pii/S003040181101039X			
11	Ambiguities in the association between symmetries and conservation laws in presence of alternative Lagrangian representations, http://th-www.if.uj.edu.pl/acta/vol42/pdf/v42p0139.pdf	**Amitava Choudhuri,** Subrata Ghosh and B.Talukdar	Acta Physica Polonica B, **42**, 139 (2011)	*Symmetry analysis*
10	On complexly coupled modified KdV equations, http://www.ias.ac.in/pramana/v75/p709/fulltext.pdf	**Amitava Choudhuri**	Pramana J. Phys. **75**, 709-718, (2010).	*Nonlinear Integrable Systems*
9	Dynamical system theory of nonlinear evolution equations http://pre.aps.org/abstract/PRE/v82/i3/e036609	**Amitava Choudhuri**, B. Talukdar and U. Das	Phys. Rev. E, **82**, 036609, (2010)	*Nonlinear Dynamics*
8	Electron Rydberg wave packets in one-dimensional atoms http://www.ias.ac.in/pramana/v75/p471/fulltext.pdf	Supriya Chatterjee, **Amitava Choudhuri,** Aparna Saha and B. Talukdar	Pramana J. Phys. **75**, 471-483, (2010)	*Quantum Theory*
7	On the supersymmetric nonlinear evolution equations http://www.springerlink.com/content/n54314p063082076/	**Amitava Choudhuri,** B. Talukdar and S. Ghosh	Nonlinear Dynamics, **58**, 245-258 (2009)	*Integrable systems and Symmetry analysis*
6	On the quantization of Damped Harmonic Oscillator http://th-www.if.uj.edu.pl/acta/vol40/pdf/v40p0049.pdf	Subrata Ghosh, **Amitava Choudhuri** and B. Talukdar	Acta Physica Polonica B, **40,** 1001-1009 (2009)	*Classical/ quantum systems*
5	Symmetries and Conservation Laws of the damped Harmonic oscillator www.ias.ac.in/pramana/v70/p657/fulltext.pdf	**Amitava Choudhuri**, Subrata Ghosh and B. Talukda	Pramana J. Phys., **70,** 657-67 (2008)	*Classical system: Symmetry analysis*
4	Modified KdV hierarchy : Lax pair representation and bi-Hamiltonian structure http://arxiv.org/abs/0801.1763	**Amitava Choudhuri,** B. Talukdar and U. Das	Z. Naturforsch, **64a**, 171-179 (2009)	*Integrable systems*
3	Noether-symmetry analysis using alternative Lagrangian representations http://www.springerlink.com/content/x1066g141637p8w5/	B. Talukdar, **Amitava Choudhuri** and U. Das	Int. J. Theor. Phys., **46**, 1129-53 (2007)	*Symmetry analysis*
2	Lagrangian approach to dispersionless KdV hierarchy http://www.emis.de/journals/SIGMA/2007/096/	**Amitava Choudhuri,** B. Talukdar and U. Das	SIGMA **3**, 096 (2007)	*Integrable systems and Symmetry analysis*
1	On a Generalized Fifth-Order Integrable Evolution Equation and its Hierarchy, http://arxiv.org/abs/nlin/0603038	**Amitava Choudhuri,** B. Talukdar and S. B. Datta	Z. Naturforsch, **61a**, 7-15 (2006)	*Integrable systems*

https://scholar.google.co.in/citations?user=aDMGAC0AAAAJ&hl=en

NEWS Published: on '**Bose–Einstein Condensate: Engineering soliton dynamics**', in Science Last Fortnight, Current Science, **118**, No. 8, 25 April, 2020

Book Published:

1. **Title:** ***Nonlinear Evolution Equations: Lagrangian Approach***
(Lambert Academic Publication, Germany, ISBN: 978-3-8454-4180-1, August 2011)

The speciality of this book : The active area of research investigation during the past sixty years has been the study of solitons and related nonlinear real world phenomena that cannot be explained with the linear evolution equations. A Lagrangian based approach has been derived to study the properties of the nonlinear evolution equations. This book will provide the background of fundamental ideas and classical Lagrangian approach to understand nonlinear real-world wave phenomena, condition for integrability, Lagrangian and Hamiltonian formulation of the integrable systems, water wave soliton, symmetry analysis of both discrete and continuous systems, supersymmetric realization from variational study and some important methods for solving the nonlinear equations up to the level of present-day active research on these and related topics. The ideas from this book will stimulate future research on understanding the nonlinear problems and may be a useful source book for researchers, graduate students enrolled in M.S and Ph.D degree programmes.

2. Edited Book entitled '**Advances in Laser Applications and Condenced Matter Physics: Collected Contributions' , E**ditors: Abhijit Chakraborty And Amitava Choudhuri (Publisher: Levant Books, 27C Creek Row, Kolkata-700014, India, ISBN: 978-81-936036-9-7, 2017)

3. I am one of the authors of Chapter 4 entitled '***Protein Dynamics in Light of Davydov's Soliton Concept' o***f the book ***'Advanced Studies in Bioscience, Biotechnology and Biochemistry (Volume - 1)'*** : Edited by Dr. D. Srihari, S. Kumar Raju (Publisher: Helmand Books, H-34/3, Sector-3, Rohini, Delhi-110085, India, ISBN: 978-93-93992-89-5, 2024)

Reviewer:

1. *Indian Journal of Physics (IJP),*
2. *International Journal of nonlinear sciences and numerical simulation.*
3. *Waves in Random and Complex Media*
4. *Pramana Journal of Physics*
5. *Optics Communication (Elsevier)*
6. *Current Journal of Applied Science and Technology*
7. *Partial Differential Equations in Applied Mathematics*
8. *New Astronomy (Elsevier)*
9. *Physics Letter A (Elsevier)*
10. *Annals of Physics*

National Label Examinations Qualified:

NET (Lectureship) (Dec. 2001, June. 2002), GATE (2002)

Academic Experiences :

Name of Organization/ Institution	Position Held	Duration		Nature of work	Reason for leaving
		From (Date)	To (Date)		
The University of Burdwan	Assistant Professor (Stage-II)	4th Dec. 2018	Till date	Teaching M.Sc. (Physics) Courses and Research	
The University of Burdwan	Assistant Professor (Stage-I)	4th Dec. 2014	3rd Dec. 2018	Teaching M.Sc.(Physics) Courses and Research	CAS Promotion
Pondicherry University	Guest Faculty	1st August, 2012	1st December 2014	Teaching M.Sc. Astrophysics course	Join in The University of Burdwan
Pondicherry University	Research Associate (Post-PhD)	26th April 2011	31st July, 2012	Research Work on Nonlinear optics	Selected for Guest Faculty
Bengal Institute and Technology and Management, Daronda, Santiniketan, West Bengal	Assistant Professor of Physics	16th July, 2010	19th April, 2011	Teaching for B. Tech Physics Course	Selected for Research Associate
Visva-Bharati University	Project Fellow	July 27, 2007	March, 2010	Research work on Variational Studies of Higher-Order Nonlinear Evolution Equations	Ph.D work
Visva-Bharati University	Project Fellow	Feb. 17, 2005	Dec. 2006	Research Work on Dynamics of higher order constrained systems	Ph.D work
IIT, Kharagpur	Project Associate	Dec 10, 2002	April, 2004	Research work on Using HI Observation to probe Cosmology	Project work

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Seminars/Conferences/schools attended:

Sl. No.	Conferences/Seminars/Schools	Title of paper read/Role	Place/year
1	Third SERC school on nonlinear dynamics		Indian Association for the Cultivation of Science, Kolkata, (December 4-23, 2006)

2	National seminar on Generalizations and Approximations in Mathematics	Variational symmetry of dispersionless KdV equation	Department of Mathematics, Visva-Bharati, (March 28-29,2008)
3	Conference on Laser Applications in Basic and in Applied Sciences (CLBAS-2009)		Department of Physics, Visva-Bharati, (February 14-17, 2009)
4	One day (Micro) seminar on Nonlinear Systems		Department of Mathematics, Visva-Bharati, (27th August, 2010)
5	International Conference on Frontiers in Applied Mathematics and its Computational Aspects (ICFAM-CA: 2011)	Linear dispersionless nonlinear evolution equations with mixed derivative	Department of Applied Mathematics, University of Calcutta, (March 15-17, 2011)
6	National seminar on Analysis of Nonlinear Systems (ANS-2011)	Linear dispersionless nonlinear evolution equations: KdV- and CH equations	Department of Mathematics, Visva-Bharati, (March 26-27, 2011)
7	Micro-seminar on Nonlinear Phenomena	Dark-in-the-Bright solitary wave solution of Higher-Order Nonlinear Schrodinger equation with non-Kerr terms	Department of Mathematics, Bethun College, Kolkata (Sept. 23, 2011)
8	State Label Technical Seminar on Recent Advancement in nanotechnology		Department of Physics, Government Arts College, Tiruvannamalai, Tamilnadu (August 5-6, 2011)
9	National Conference on Recent Advances in Numerical Methods and its Application (RANMA -2014)	Spatially flat FRW Universe filled with Bulk-Viscous Fluid : A Symmetric Approach	Department of Mathematics (Ramanujan School of Mathematical Sciences), Pondicherry University, Puducherry-605014 , (27-28 January, 2014)
10	National Seminar on Condensed Matter, Laser and Communication (NSCMLC 2015)	Analytical solutions for Higher-Order Nonlinear Schrödinger equation with derivative non-Kerr Nonlinearity	Department of Physics, The University of Burdwan, Golapbag, Burdwan (February 27 – 28, 2015)
11	One Day National Seminar on International year of Light: Centenary of Einstein's Equation of General Theory of General Theory of Relativity (Sponsored by DST, Govt. of West Bengal)	Acted as Secretary	Department of Physics, The University of Burdwan, Golapbag, Burdwan (March 31st , 2016)
12	National Conference On Nonlinear Dynamics and its Applications (CNDA-16)	A model equation for sub-10fs pulse propagation: A study using dynamical-systems theory approach	The Department of Physics. Durgapur Govt. College, J. N. Avenue, Durgapur, Pin-713214,WB, INDIA (Feb. 7-9, 2017)

13	National Seminar on Condensed Matter, Laser and Communication (NSCMLC 2017)	Acted as Secretary	Department of Physics, The University of Burdwan, Golapbag, Burdwan (March 8 – 9, 2017)
14	National conference on condensed matter physics (CMDAYS-2018)		Department of Physics, The University of Burdwan, Golapbag, Burdwan (August 29-31, 2018)
15	One Day Seminar on Advances in Physical Sciences		Department of Physics, The University of Burdwan, Golapbag, Burdwan (7^{th} Dec. 2018)
16	National Seminar on Condensed Matter, Laser and Communication (NSCMLC 2020)	Acted as Secretary	Department of Physics, The University of Burdwan, Golapbag, Burdwan (February 13 – 14, 2020)
17	Departmental Students Webinar on Astronomy & Astrophysics on 18-19 June 2020	Solar system, Galaxy and Universe (Invited Talk-Online)	Burdwan Raj College, (August 18, 2020)
18	31^{st} Meeting of Indian Association of General Relativity & Gravitation. (Online)	Attended	The Discipline of Physics, IIT Gandhinagar, (December 19-20, 2020)
19		Solar Eclipse, Solar System and Universe (Invited Talk-Online)	Bardhaman Science Centre National Council of Science Museums Ministry of Culture, Govt. of India Ramna Maidan, Burdwan - 713 104 (October 25, 2022)

** Biographical inclusion in Marquis Who's Who-2013 (2013 30^{th} Pearl Anniversary edition of Who's Who in the World)*

Last updated till 8^{th} August, 2024 (Dr. Amitava Choudhuri)